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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,474	08/20/2003	Jun-Hyong Kim	F-7927	5950

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EXAMINER

WALBERG, TERESA J

ART UNIT PAPER NUMBER

3742

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,474

Applicant(s)

KIM, JUN-HYONG

Examiner

Teresa J. Walberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/22/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 5 it is unclear why plate 3 is referred to as "an electric heat plate". The plate is disclosed as being a copper plate with no electrical connections. It does not appear that the plate 3 is electric, rather it appears to be a heat transfer plate. It has been assumed for purposes of examination that the phrase "electric heat plate" is used to mean a plate used with an electric heater. Clarification is requested.

In claim 10 it is unclear what was meant by the terms "pension" and "movable house". It appears that other terms were intended. Clarification is requested.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1 and 10, to the extent understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over J. Kim (US 6,166,357) in view of H. Kim (Korea 96-33085).

J. Kim discloses an electrically heated mat including an adiabatic member (10) installed at the bottom of an electric mat, a heating element (8) provided on the adiabatic member (10), a heat transfer plate (6) on an upper portion of the heating element (8), a metal fiber layer (5) on an upper portion of the heating element (8), a mineral layer (4) on the metal fiber layer, a finishing layer (2) which covers an upper side of the mineral layer (4), a controller (12 in Fig. 2) for controlling a temperature of the electric mat, and a connection means for engaging the electric mat and the controller.

J. Kim does not disclose the mineral being "yellow soil", the metal mesh being silver, or the heating element including a heat cord arranged in a concave portion of the heating hose and including a regenerative material.

While J. Kim states that the preferred embodiment uses jade as the heat transfer mineral, the patent also states at col. 1, line 65, that it is known in the art to use "yellow soil". It would have obvious in view of this teaching of J. Kim to use yellow soil as the heat transfer mineral rather than jade, based on which mineral the user found more desirable.

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While J. Kim uses copper, rather than silver, as the metal fiber layer, it would have been obvious to use silver in place of the copper, since silver is a harder metal and thus would produce a stronger layer.

H. Kim discloses a heating mat using a heat cord arranged in a concave portion of the heating hose and including a regenerative material. See Figs. 2 and 3.

It would have been obvious in view of H. Kim to use a heating element having a heat cord arranged in a concave portion of a heating hose and including a regenerative material in the heating mat of J. Kim, the motivation being to better spread out the heat from the small heating wires to the entire mat.

5. Claims 2-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over J. Kim (US 6,166,357) in view of H. Kim (Korea 96-33085) as applied to claims 1 and 10 above, and further in view of Lee (Korea 10-0338924).

J. Kim (US 6,166,357) and H. Kim (Korea 96-33085) disclose the claimed structure with the exception of plugging caps on the ends of the heating hose. Lee discloses the use of plugging caps on the ends of a heating hose containing heat transfer material.

It would have been obvious in view of Lee to provide caps on the ends of the heating hose of J. Kim in view of H. Kim, the motivation being to provide easier access to the heat transfer material in the tube.

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6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (Korea 10-0338924) in view of H. Kim (Korea 96-33085).

Lee discloses an electric mat (see Figs. 1 and 2) including a heating hose (7), a regenerative material, an electric heat cord (9) installed in the middle of the heat hose (7) and having a zig-zag shape (see fig. 1). the electric heat cord being provided in a concave portion in the heating hose in a longitudinal direction (see Fig. 2).

Lee does not appear to disclose a plane type plate on both surfaces of the mat.

H. Kim discloses a heating plate (1,2) on both sides of the electric heating element.

It would have been obvious in view of H. Kim to provide heating plates on both sides of the heated mat of Lee to better protect the mat from damage.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over J. Kim (US 6,166,357) in view of H. Kim (Korea 96-33085) as applied to claims 1 and 10 above, and further in view of West (6,331,695).

J. Kim in view of H. Kim discloses the claimed structure with the exception of a battery and battery charger.

West teaches the use of a battery and battery charger with an electric heating device.

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It would have been obvious in view of West to use a battery and battery charger with the electric heated mat of J. Kim in view of H. Kim, the motivation being to enable use of the heater away from an electrical outlet.

8. Claims 6 and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jung and Saluri are cited to show heating mats. Choi and Kim (WO 99/65364) are cited to show heating mats using yellow soil.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 703-308-1327. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 703-305-5766. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Teresa J. Walberg
Primary Examiner
Art Unit 3742

tjw